

Caltrans District 11

# The Mile Marker 11.0

September 2014

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Edmund G. Brown Jr., Governor, State of California

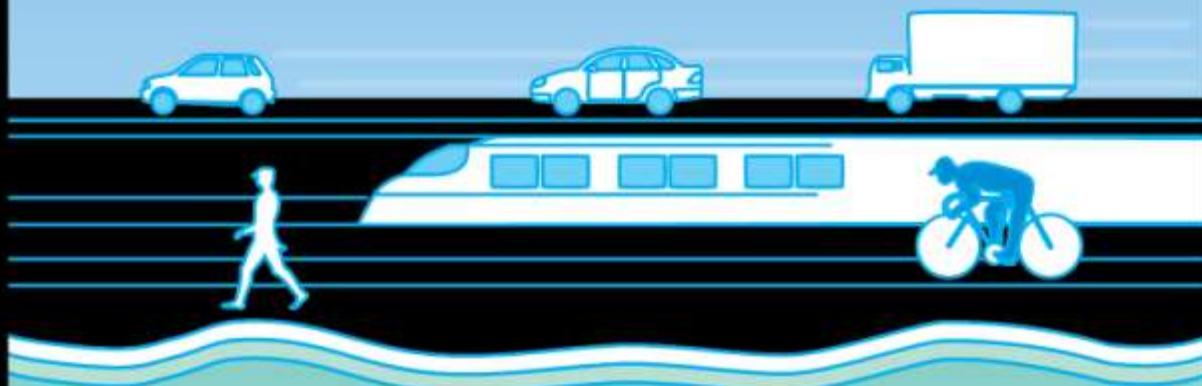
Malcolm Dougherty, Director, California Department of Transportation (Caltrans)

# Mission

Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

# Vision

A performance-driven, transparent and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.



# Goals

## **Safety and Health**

Provide a safe transportation system for workers and users, and promote health through active transportation and reduced pollution in communities.

## **Stewardship and Efficiency**

Money counts. Responsibly manage California's transportation-related assets.

## **Sustainability, Livability and Economy**

Make long-lasting, smart mobility decisions that improve the environment, support a vibrant economy, and build communities, not sprawl.

## **System Performance**

Utilize leadership, collaboration and strategic partnerships to develop an integrated transportation system that provides reliable and accessible mobility for travelers.

## **Organizational Excellence**

Be a national leader in delivering quality service through excellent employee performance, public communication, and accountability.





# Welcome To The Mile Marker 11.0



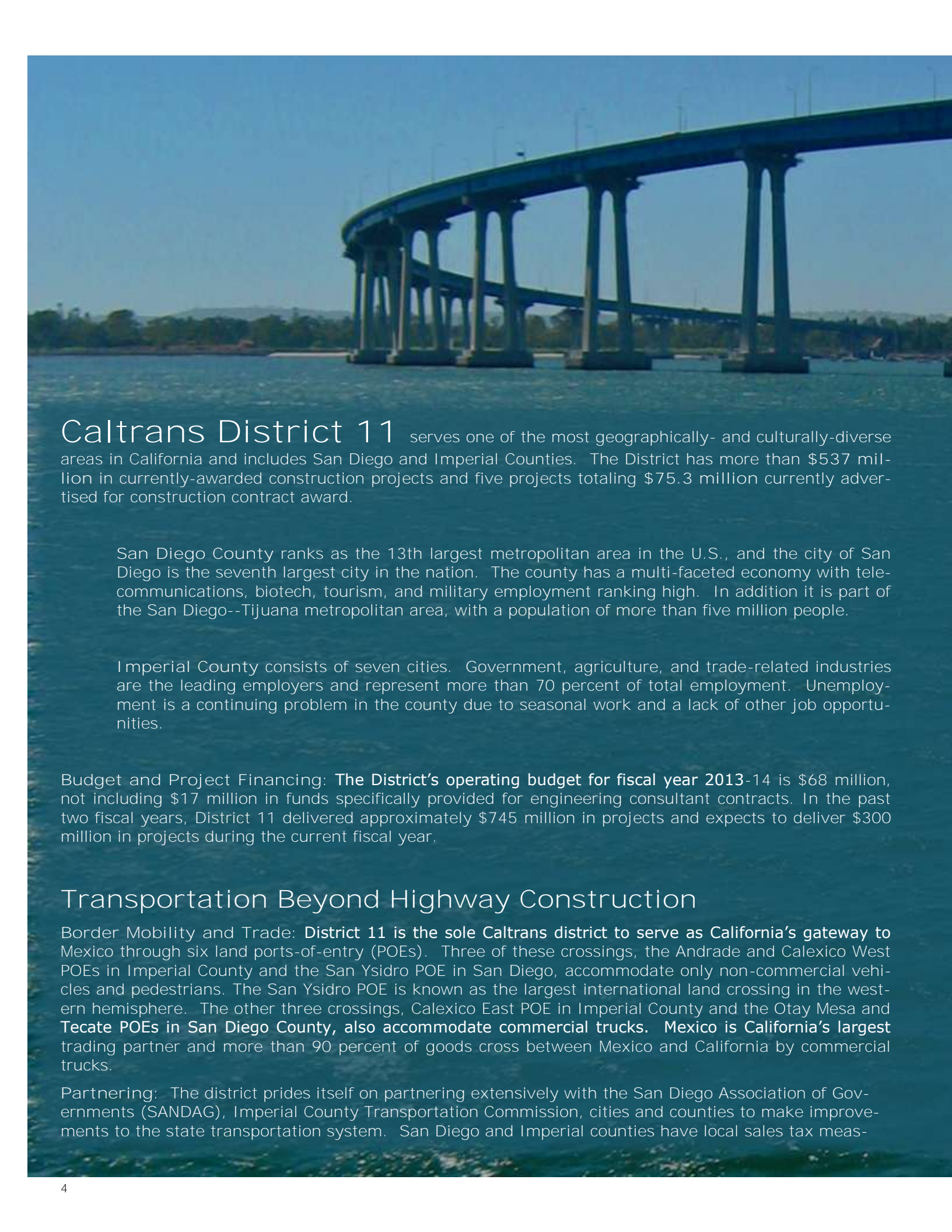
The *District 11 Mile Marker* is intended to provide an assessment of our performance in a clear, plain-language format. The public wants to know how well we are doing our jobs. With that in mind, the *Mile Marker* provides a high-level overview of the District and reports key performance indicators.

**The new Caltrans Vision of: "A performance-driven transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork", places performance at the center of focus.** To that end, communicating our accomplishments and highlighting the challenges that we face sets the expectations for transparency and accountability.

This first *Mile Marker* is the beginning of providing meaningful performance-based information consistent with **efforts to "change the way we do business" to be increasingly accountable** and to inform decision-makers, the media and the public about the condition of the state highway system in San Diego and Imperial counties. While in the formative stages, it is anticipated that future *Mile Markers* will provide greater insights into what lies ahead, while also reflecting on past performance. Meaningful performance measures will be tracked over time and used to adjust business practices to meet customer needs and expectations.

With a workforce of 1,200 staff maintaining, operating, planning, designing and constructing the system, District 11 strives to provide a world-class transportation network that meets the needs of the traveling public. A key area of **focus emphasizes sustaining the public's investment** through on-going maintenance and innovative and increasingly efficient operation of the transportation system. We work in partnership with local and regional public agencies **to fulfill our mission: "Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability."**

I hope the *Mile Marker 11.0* will be informative and I welcome your comments and questions. Please contact the Caltrans Public Information Office at (619) 688-6670 or e-mail at [CT.Public.Information.D11@dot.ca.gov](mailto:CT.Public.Information.D11@dot.ca.gov).



**Caltrans District 11** serves one of the most geographically- and culturally-diverse areas in California and includes San Diego and Imperial Counties. The District has more than \$537 million in currently-awarded construction projects and five projects totaling \$75.3 million currently advertised for construction contract award.

San Diego County ranks as the 13th largest metropolitan area in the U.S., and the city of San Diego is the seventh largest city in the nation. The county has a multi-faceted economy with telecommunications, biotech, tourism, and military employment ranking high. In addition it is part of the San Diego--Tijuana metropolitan area, with a population of more than five million people.

Imperial County consists of seven cities. Government, agriculture, and trade-related industries are the leading employers and represent more than 70 percent of total employment. Unemployment is a continuing problem in the county due to seasonal work and a lack of other job opportunities.

**Budget and Project Financing: The District's operating budget for fiscal year 2013-14 is \$68 million, not including \$17 million in funds specifically provided for engineering consultant contracts. In the past two fiscal years, District 11 delivered approximately \$745 million in projects and expects to deliver \$300 million in projects during the current fiscal year.**

## Transportation Beyond Highway Construction

**Border Mobility and Trade: District 11 is the sole Caltrans district to serve as California's gateway to Mexico through six land ports-of-entry (POEs). Three of these crossings, the Andrade and Calexico West POEs in Imperial County and the San Ysidro POE in San Diego, accommodate only non-commercial vehicles and pedestrians. The San Ysidro POE is known as the largest international land crossing in the western hemisphere. The other three crossings, Calexico East POE in Imperial County and the Otay Mesa and Tecate POEs in San Diego County, also accommodate commercial trucks. Mexico is California's largest trading partner and more than 90 percent of goods cross between Mexico and California by commercial trucks.**

**Partnering:** The district prides itself on partnering extensively with the San Diego Association of Governments (SANDAG), Imperial County Transportation Commission, cities and counties to make improvements to the state transportation system. San Diego and Imperial counties have local sales tax meas-





ures which make it possible to leverage local funding with state and federal dollars to deliver more projects sooner. This partnering is most evident with the use of SANDAG TransNet funds in creating transportation corridor teams, making highway and transit improvements through a multi-modal integrated approach. The district applies this successful delivery approach on many projects.









**Tribal Governments:** District 11 has more federally-recognized tribes than any other District. There are **19 Tribal governments located on 20 reservations within San Diego and Imperial Counties.** District 11's Native American Liaison serves as the first point of contact between Caltrans, tribal governments, and others associated with intergovernmental relations. Six of the reservations border state highways located within District 11 and the others are not far from state highways.

**Freeway Operations:** In addition to the planning, design, construction, and maintenance of the state transportation system, Caltrans produces a variety of innovative tools to maximize the system during peak traffic hours. Some improvements are physical, such as the construction of additional lanes and express lanes, the application of route shield logos on pavement and reflective overhead signing. Others include traffic management tools such as electronic message signs, pavement sensors, ramp meters, video cameras, interactive real-time **"QuickMap" traffic maps, social media and the Freeway Service Patrol.** The region's Transportation Management Center in Kearny Mesa collects daily freeway data, and monitors and disseminates timely information so motorists may have viable commute choices.

**Maintenance:** Caltrans is responsible for maintaining the state transportation infrastructure already in place. There are 1,100 highway centerline miles in San Diego and Imperial counties that require daily routine maintenance of pavement, signs, signals, guardrail, lighting, landscape, and irrigation. Crews are also responsible for the removal of snow, sand, and debris from the roadway, as well as timely response **for emergency closures and incident cleanups.** Motorists are reminded to always **"Slow for the Cone Zone,"** and **"Move Over"** a lane to help keep highway workers safe.

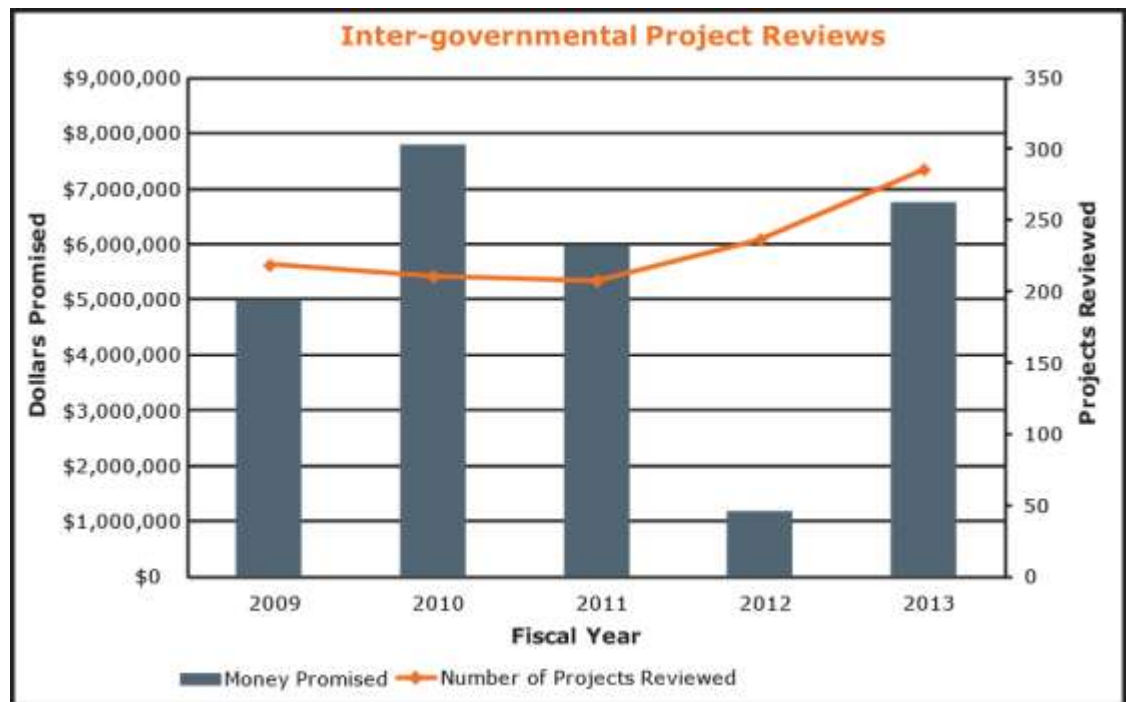
**Adopt-A-Highway:** The Caltrans Adopt-A-Highway Program enlists individual, group, civic organization, business, and government agency volunteers to help maintain and beautify sections of state highways. They can do this through litter removal, vegetation control, tree and shrub planting, wildflower planting, and graffiti removal. An adopted site typically spans a two-mile stretch of roadway. Volunteers may commit for up to five years, or apply for a simple, one-day permit. The local program saves state taxpayers hundreds of thousands of dollars each year.

# Breakdown

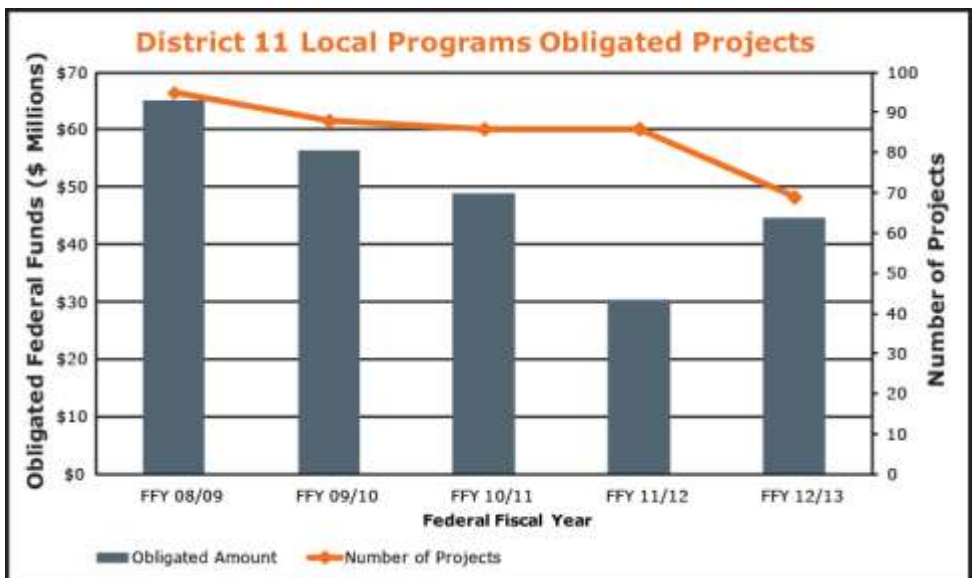
Performance Measure	Previous Period	Current Period	Goal	Goal Met	Desired Trend
<b>Safety</b>					
Number of fatal accidents in 2011, on the D-11 state highway system, for every 100 million vehicle miles traveled.	0.61	0.61	1.0 or less	YES	
<b>Stewardship/Sustainability</b>					
Percentage of D-11's total annual flexible pavement placed, consisting of rubberized hot-mix asphalt, which uses recycled tires.	69	52	25	YES	
<b>Delivery</b>					
Percentage of planned projects delivered on schedule and ready for construction in fiscal year 2012-13.	100	100	100	YES	
<b>Maintenance</b>					
The fiscal year 2012-2013 overall maintenance roadway service score, on a scale of 0-100, with 100 being the best.	91	91	87	YES	
Percentage of the District 11 state highway system pavement that is healthy.	88	94	90	YES	
Overall condition of District 11 bridges on a scale of 0-100, with 100 being the best.	98.6	98.7	94	YES	
Percentage of District 11 vehicle detectors that are "good" or functioning properly.	84	90	90	YES	
Level-of-service score for highway litter and debris collected in District 11 for fiscal year 2012-13.	87	82	80	YES	

# Performance

Each year District 11 Inter-governmental Review staff reviews hundreds of development projects to determine the potential impact on the state transportation system. Many projects have direct and cumulative impacts based on the volume of traffic generated or the physical proximity to the state highway. In many instances the developer is required to mitigate those impacts directly or **pay “fair share” contributions** to transportation projects that off-set the impacts.



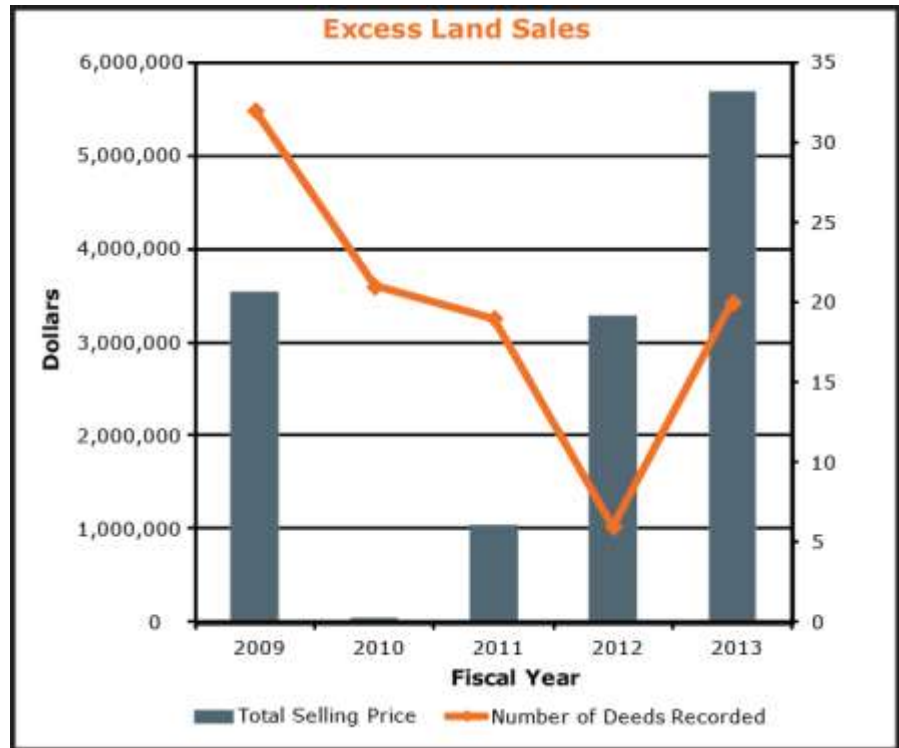
Federal transportation funding used by local agencies is administered by Caltrans Local Assistance staff. Each federal fiscal year, a number of different fund types are used to design and construct local roadway and bridge projects. Major funding programs include: Highway Bridge Program (HBP), Regional Surface Transportation Program (HBP), Congestion Mitigation & Air Quality (CMAQ) program, Highway Safety Improvement Program (HSIP), High Risk Rural Roads (HRRR), Safe Routes to School Programs (SRTS), Discretionary Programs, Proposition 1 B program, Recovery Act program, and Active Transportation Program (ATP).



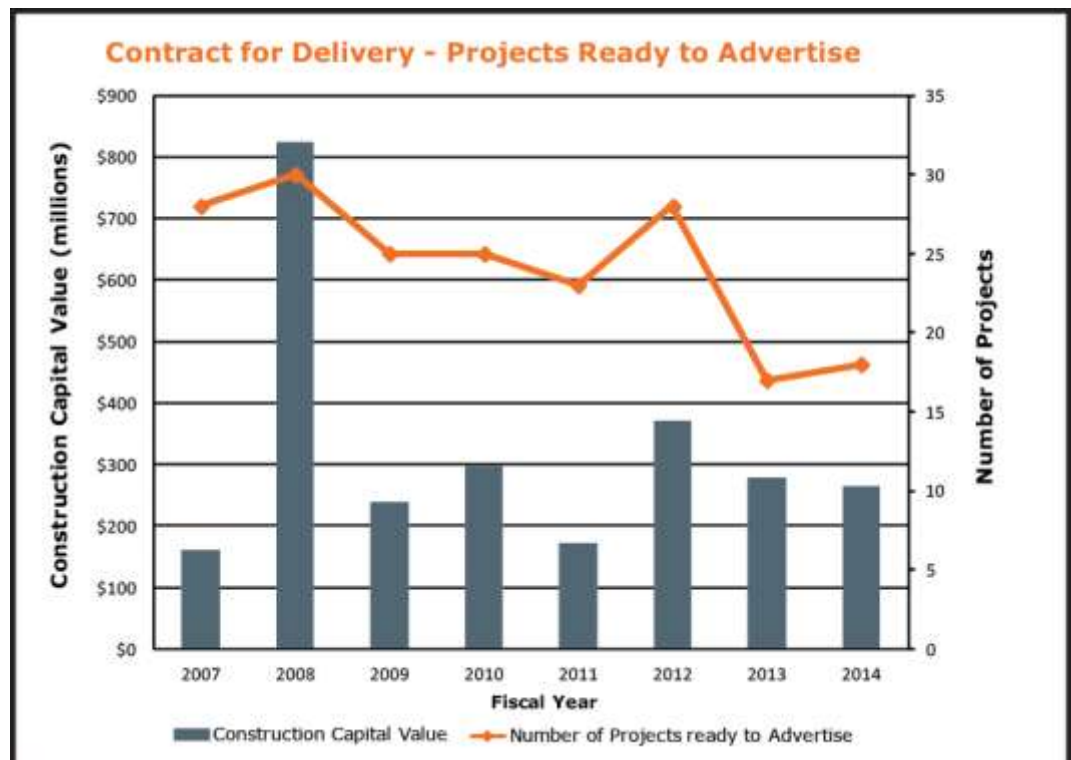


# Performance

In an effort to return the value of real property no longer needed for transportation projects back to the taxpayers, excess land is sold at fair market value on a regular basis. Revenue derived from excess land sales flows back to the state's general fund or back to the local source of funding used to acquire the property. Annual excess land reviews assure good stewardship of public funds.



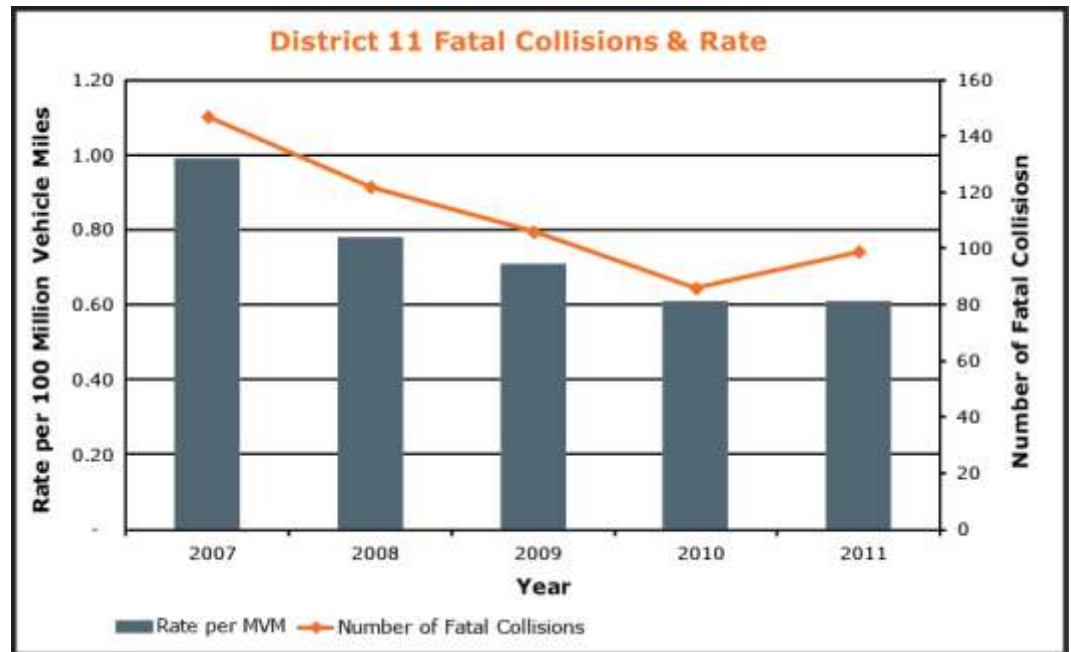
Annually each Caltrans District commits to "deliver" capital projects. The delivery milestone used to evaluate performance is called "Ready to List" an industry term indicating that a project is ready to advertise for construction contract bids. The projects included in the annual Contract for Delivery (CFD) are the larger ones that often take a number of years to plan, environmentally approve, and design. The resulting construction work supports the local economy and creates jobs.





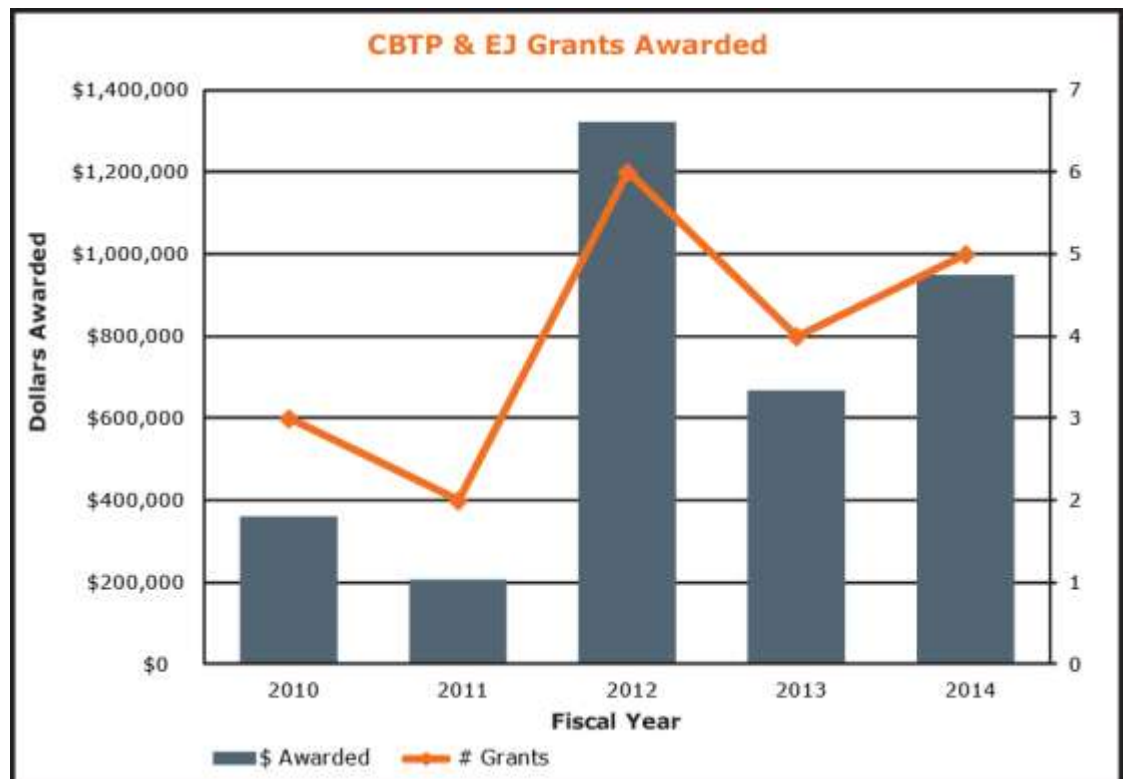
# Performance

Overall the number of collisions and the rate per million vehicle miles has been declining for the last five years. In District 11, the national goal of less than one fatal collision for every 100 million vehicle miles traveled has been declining as well. Targeted safety improvement projects are identified and implemented on an on-going basis to continue to meet the goal and to further reduce the total number and severity of collisions in District 11.



The trend shows a decline during a five-year period; however, data for 2012-2013 is being processed and not yet ready for release.

Each fiscal year, the legislature includes in the Caltrans budget funds for the Community-Based Transportation Planning (CBTP) and Environmental Justice (EJ) grant program. Approximately \$6 million are available annually for projects costing up to \$300,000 to address transportation issues in local communities. Emphasis is placed on public involvement in the planning process. Within District 11, a total of 54 grants have been awarded in the 13-year history of the program.



# Innovation

## Bicycling Safety Boosted With No-Turn Signal

Stop . . . and check out the new technology recently installed to increase safety for bicyclists, pedestrians and motorists on State Route 56 at Black Mountain Road.

District 11 partnered with the city of San Diego to improve safety at the intersection by installing the **unique “blank out, no turn on red” traffic signal**. Here’s how it works – bicyclists or pedestrians press the crossing button and when the **green light indicates it’s their turn** to cross, an additional signal for motorists illuminates showing a crossed-out red right-turn arrow and alerting drivers that a right turn on red is prohibited. If no one pushes the button, then the signal **doesn’t illuminate** and drivers are free to make the right turn after first coming to a complete stop.

Caltrans Bike and Pedestrian Coordinator Seth Cutter witnessed a fellow cyclist miraculously suffer only minor injuries after being struck by a vehicle at the busy intersection. He said this added measure of highway safety is the first of its kind in the region and is expected to help.

The “blank out, no turn on red” traffic signal project cost \$60,000 and was a cost-savings alternative to the original consideration for a grade-separation improvement under Black Mountain Road. The plan now calls for loop detectors to be installed on the approach to the intersection so bicyclists do not need to dismount to press the button and activate the signal.

This technology may be considered for future freeway projects with nearby bike and pedestrian access from adjacent paths or across ramps.



**The “blank out, no turn on red” traffic signal provides an added measure of safety for pedestrians, bicyclists and motorists. Caltrans and the city of San Diego partnered on this first-of-its-kind freeway project for the region.**



# Innovation

## High-Tech Surveys Tool Gets District Test Drive

Caltrans Research and Innovation is constantly challenged with finding ways to utilize the latest technology to save taxpayers money, reduce travel impacts and maintain a safe environment for motorists and highway workers. The Mobile Terrestrial Laser Scanning Vehicle (MTLS) is among these latest high-tech tools to literally hit the road.

The MTLS is part sport utility vehicle and part Global Positioning System/Global Navigation Satellite System – **it's basically a highway survey crew on wheels, collecting vital topographic information while moving down the road at up to 55 mph.**

This high-precision, three-dimensional information is the foundation for all highway planning, design and construction work, everything from adding an interchange and bike lane to guardrail and landscaping. It can be used to analyze sight distance information for traffic operations, identify trees for environmental purposes and by maintenance forces to monitor pavement conditions.

The fully-loaded MTLS with laser scanners, servers, computer workstations, batteries, hardware and software costs about \$1.1 million. There is currently one available as part of a statewide pilot project. It takes two people to operate the MTLS, replacing the traditional three-person survey crew.

Safety to motorists and workers is by far the biggest benefit of MTLS. It reduces the exposure of the survey workers and their equipment to traffic. It also saves money by reducing the traffic congestion associated with traditional survey work, and covering more pavement in less time. MTLS can survey a stretch of highway in one day that would otherwise take weeks to do.

District 11 recently put the MTLS to the test by surveying 15 miles along the Interstate 5 North Coast Corridor and portions of Interstate 15 near Adams Avenue and State Route 52 near Convoy Street. The future looks bright for MTLS with plans calling for an evaluation of the pilot project and possibly expanding the fleet in the coming years.



The MTLS is part sport utility vehicle and part Global Positioning System/Global Navigation System. It covers more pavement in less time and improves safety for surveys workers.

# Innovation

## Pavement Shields Help Motorists Find Way At Crossroads

Most of the more than 100,000 drivers a day who travel westbound Interstate 8 just east of the I-8/I-5 interchange get to where they need to be by taking their directions from the freeway pavement.

For the past two years, thermoplastic directional freeway shield logos embedded into the freeway lanes have directed drivers to their desired lanes well in advance of one of the busiest interchanges in the region.

Maneuvering the interchange can be tricky, especially when you mix in the many tourists who may be visiting for the first time.

Before placing the thermoplastic shield logos on the lanes, a special epoxy was used to help bond. The shields **were then "melted" onto the pavement** using a torch at 1,200 degrees.

The shield logos were part of a \$46,000 pilot project -- the first of its kind in the state -- to help reduce vehicle incidents through the area. They are an interim safety solution for the upcoming interchange connector project which broke ground this summer.

Traffic engineers are continuing to study the lifespan and effectiveness of the shield logos to be used elsewhere in the region.



The freeway logo shields on westbound I-8, just east of the I-8/I-5 interchange have received rave reviews since fixed to the pavement about two years ago. The thermoplastic logos were embedded into the freeway pavement.



## **“Steer Clear” Spotlighted Two Major Closures**

The planned 14-hour closure of Interstate 805 between State Route 54 and SR-905 and the demolition of the East Palomar Street Bridge known as “DARmageddon” in August 2013 was the second of two major freeway project closures billed as the 2013 Street Clear Campaign.

The first full freeway closure as part of the campaign was earlier in July (about 36 hours) on southbound I-15 from SR-56 to Rancho Penasquitos Boulevard to install roadway drainage. All went smoothly thanks to teams of workers from Construction, Traffic Operations, Maintenance, Project Management, the Public Information Office. The focus then quickly shifted to the South County and I-805 “DARmageddon.”

In addition to steering motorists away from the overnight closure, the “DARmageddon” message was developed to educate the public about the demolition of the bridge to make room for the Direct Access Ramp (DAR) as part of the I-805 South Project. All forms of advertising and interviews throughout the county and in Mexico saturated the media. In the end, it helped reduce traffic through the corridor at the time of demolition to an amazing half of what it would normally be.



# Innovation

## Shining The Light On Overhead Freeway Signs

Many of us may have grown up with parents who encouraged us to turn off the lights when we left the room in order to conserve energy and save a few bucks each month. District 11 is taking a similar approach, only on a much larger scale.

The district completed a pilot project in 2012 on Interstate 805/State Route 905 in Chula Vista using reflective sheeting on several overhead highway signs. All the typical electrical sign lights were turned off to check the visual effectiveness of the new reflective sheeting. The results were impressive.

Utilizing only oncoming vehicle headlights, the signs were clear and visible as if the fixed lighting system was still on.

**It's estimated that more than \$4 million is spent each year on highway sign lighting across the state, and this does not include labor and maintenance costs.** This, combined with the movement toward green initiatives that are eco-friendly, lower maintenance costs and reduced risk of injury for maintenance workers, helped make the district test bed project a winner on all fronts.





# 2014

## Major Construction Map

### SAN DIEGO COUNTY

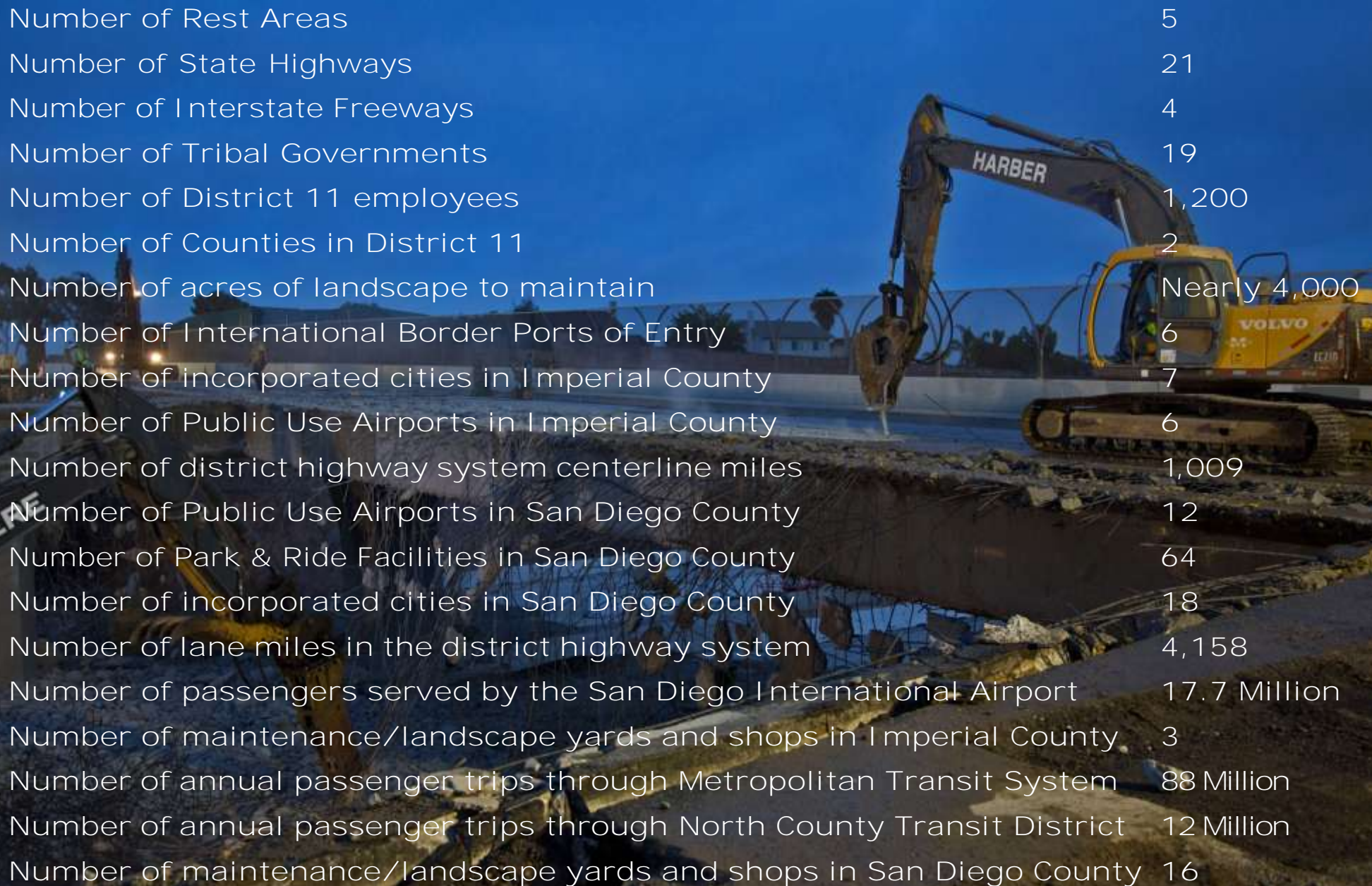
- 1 Pavement rehabilitation on I-5 from the Aliso Creek Rest Area to the Orange County Line.  
Cost: \$48 million. Completion: Fall 2015.
- 2 Construct four-lane expressway on SR-76 from South Mission Road to I-15.  
Cost: \$100 million. Completion: Winter 2017.
- 3 Construct median barrier on SR-76 from Rancho Del Oro Drive to Melrose Drive.  
Cost: \$10 million. Completion: Winter 2015.
- 4 Reconfigure and add parking structure at the Sabre Springs Transit Station for the I-15 Express Lanes.  
Cost: \$12.2 million. Completion: Spring 2014.
- 5 Construct Direct Access Ramp to the I-15 Express Lanes.  
Cost: \$27.8 million. Completion: Summer 2014.
- 6 Construct High Occupancy Vehicle Lane and northbound Direct Access Ramp on I-805 from Carroll Canyon Road to the I-5/I-805 Merge. Also extend Carroll Canyon Road from Scranton Way to Sorrento Valley Boulevard.  
Cost: \$67.2 million. Completion: Spring 2014.
- 7 Widen bridge and ramps on I-5 at Genesee Avenue.  
Cost: \$57 million. Completion: Summer 2017.
- 8 Construct Express Lanes on I-805 (North Segment) from just south of SR-52 to just north of Mira Mesa Boulevard.  
Cost: \$86 million. Completion: Winter 2015.
- 9 Install outer separation safety barrier on I-5 from Mission Bay Drive to La Jolla Parkway.  
Cost: \$4 million. Completion: Winter 2014.
- 10 Construct Centerline Bus Rapid Transit Stations on SR-15 at El Cajon Boulevard and University Avenue.  
Cost: \$37.5 million. Completion: Summer 2016.
- 11 Bridge seismic retrofit and rehabilitation project on I-805 at Mesa College Drive/Kearny Villa Road and at the I-5/SR-75 interchange.  
Cost: \$2.5 million. Completion: Fall 2014.
- 12 Add an auxiliary lane on southbound SR-163 from Genesee Avenue to I-8. Also widen the Friars Road Overcrossing.  
Cost: \$24 million. Completion: Fall 2016.
- 13 Add an auxiliary lane on northbound I-5 and restripe the westbound I-8 to I-5 connector.  
Cost: \$7 million. Completion: Summer 2016.
- 14 Bridge seismic retrofit and rehabilitation project on SR-163 at Cabrillo Bridge/Laurel Street Overcrossing.  
Cost: \$38 million. Completion: Summer 2014.
- 15 Upgrade landscape and irrigation system on SR-163 from I-5 to Robinson Avenue.  
Cost: \$5 million. Completion: Winter 2014.
- 16 Pavement rehabilitation on SR-94 from Jamacha Road to Community Building Road.  
Cost: \$14.5 million. Completion: Winter 2014.
- 17 Construct Express Lanes on I-805 (South Segment) from East Palomar Street to the I-805/SR-94 interchange.  
Cost: \$54 million. Completion: Spring 2014.
- 18 Construct East Palomar Street Direct Access Ramp on I-805.  
Cost: \$43 million. Completion: Winter 2014.
- 19 Construct northbound connectors on SR-905 and SR-11 to SR-125.  
Cost: \$16.6 million. Completion: Spring 2015.
- 20 Construct connectors on SR-11 to SR-905, and construct SR-11 to Enrico Ferme Drive.  
Cost: \$76.5 million. Completion: Winter 2015.

Please note that all costs and completion dates are estimated.





# Fingertip Facts



Number of Rest Areas	5
Number of State Highways	21
Number of Interstate Freeways	4
Number of Tribal Governments	19
Number of District 11 employees	1,200
Number of Counties in District 11	2
Number of acres of landscape to maintain	Nearly 4,000
Number of International Border Ports of Entry	6
Number of incorporated cities in Imperial County	7
Number of Public Use Airports in Imperial County	6
Number of district highway system centerline miles	1,009
Number of Public Use Airports in San Diego County	12
Number of Park & Ride Facilities in San Diego County	64
Number of incorporated cities in San Diego County	18
Number of lane miles in the district highway system	4,158
Number of passengers served by the San Diego International Airport	17.7 Million
Number of maintenance/landscape yards and shops in Imperial County	3
Number of annual passenger trips through Metropolitan Transit System	88 Million
Number of annual passenger trips through North County Transit District	12 Million
Number of maintenance/landscape yards and shops in San Diego County	16